Evaluating the Mastery-Avoidance Construct: A Study of Elite College Baseball Players

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Abstract

Mastery-avoidance goals are strivings to avoid intrapersonal or absolute incompetence. This type of goal has received less scrutiny than the other three goals in Elliot's (1999) 2 x 2 achievement goal framework, perhaps because of its ambiguity and counterintuitive nature. We attempted to clarify the meaning of the construct using a sample of elite baseball players from one university's Division I men's team. Players were asked to respond to two mastery-avoidance Likert items, and to explain (in writing) their response to each item. Results revealed both low and high ratings of mastery-avoidance goals, with the most valid interpretations coming from low endorsers. High endorsement was often followed with an incongruent response. Results suggest that mastery-avoidance goals may be quite rare, and high ratings may be more indicative of misinterpretation rather than an avoidance goal.

Key words: motivation, sport psychology, goal theory, achievement goal framework, Division I, NCAA

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Introduction

Research on athletes' goals has progressed from a dichotomous model of achievement goals to a 2 x 2 framework that includes approach-avoidance forms of mastery and performance goals (for a review, see Elliot & Conroy, 2005). Early models of achievement goals focused solely on performance goals (also known as ego or ability goals) and mastery goals (also known as learning or task goals; Ames, 1992; Nicholls, 1984). Studies with the dichotomous model were concerned with motivation to outwardly demonstrate ones ability (performance) versus motivation to develop competence (mastery). Elliot (1997, 1999) proposed that the dichotomous model was limited as it represents only two forms of approach motivation, thus not accounting for approach-avoidance distinctions that underlie human motivation and goal strivings (see Elliot, 1997, 2006; Elliot & Covington, 2001; McClelland, Atkinson, Clark, & Lowell, 1953). For example, an athlete may be motivated to adopt a goal to attain a positive outcome (approach) or a goal to avoid a negative outcome (avoidance). Research suggests that the valence of an athlete's goal can result in markedly different experiences with regard to well-being and performance (e.g., Elliot, Cury, Fryer, & Huguet, 2006). The bifurcation of performance goals was known as the trichotomous achievement goal framework (e.g., Elliot et al., 2006), and the subsequent split of mastery goals resulted in the 2 x 2 achievement goal framework (Elliot & Conroy, 2005; Moller & Elliot, 2006). While research on approach and avoidance forms of performance goals is common in the extant literature, mastery-avoidance goals represent a new construct that awaits further investigation.

Mastery-Avoidance

Mastery-avoidance (MAV) goals have been defined as a “striving to avoid absolute or intrapersonal incompetence” (Conroy, Elliot, & Hofer, 2003, p. 457). Proposed examples of MAV goals in the athletic domain include not wanting to: a) lose one’s skills and abilities, b) do worse than a previous performance, and c) make a mistake (Elliot, 1999; Elliot & Conroy, 2005). As the final addition to 2 x 2 achievement goal framework, MAV goals have been subjected to the least empirical scrutiny. While exiguous to date, the extant literature in sport and exercise has shown both positive and negative relationships with MAV goals. For example, MAV goals have been linked to a decline in youth swimmers’ motivation (Conroy, Kaye, & Coatsworth, 2006), and fear of failure (Conroy et al., 2003; Conroy & Elliot, 2004). Others have found positive relationships between MAV goals and perceived competence, enjoyment, effort, and physical activity (Wang, Biddle, & Elliot, 2007), as well as perceptions of an enjoyable learning climate (Morris & Kavussanu, in press). These mixed results are not surprising considering the debate surrounding the construct.

What are Mastery-Avoidance Goals and do they Matter?

As is common with new constructs, numerous questions remain regarding the validity, measurement, and usefulness of MAV goals. A review of the literature reveals two common concerns: 1) are MAV goals too rare to be useful?, and 2) Do MAV goals make sense to respondents? Regarding the first concern, Sideridis and Mouratidis (2007) conducted two studies that allowed nearly 400 elementary and middle school students (in an athletic setting) to select their most prominent achievement goal. Remarkably, out of the four goals in the 2 x 2 framework, only 14 students across both studies selected MAV as their primary goal. These results led Sideridis and Mouratidis (2007) to question the very existence of MAV goals in elementary students, and their usefulness in older adolescents. Regarding the second concern, MAV goals have also been the target of debate for being conceptually problematic (Pintrich, 2000; Pugh & Bergin, 2006). Scrutiny of the MAV literature reveals competing conceptions, operational definitions, and methods of measurement for MAV goals (e.g., Bonney & Cortina; Easter, Ciani, & Summers, 2007a, 2007b; Hulleman, Trinastic, & Harackiewicz, 2006; Pintrich, 2000). Given the controversy surrounding the construct and the mixed results to date, it appears that researchers and theorists alike could benefit from a greater understanding of MAV.

Purpose

In this study we aimed to evaluate both the prevalence and the meaning of MAV goals in elite college baseball players, by using a mixed quantitative/qualitative design. Specifically, we asked participants to first rate some MAV items, and then to explain *why* they gave the rating they did (Urdan & Mestas, 2006). Thus, we could examine two research questions: 1) how strongly (or weakly) do athletes endorse MAV goals, and 2) do athletes' written explanations for their ratings match their numerical ratings, i.e., do they properly understand the items, regardless of how they respond to them? The first research question addresses the possibility that MAV goals are uncommon or even rare, and the second research question addresses the possibility that mastery-avoidance goals can be difficult for participants to understand.

Method

Participants and Procedure

Eight baseball players at a large public university in the Midwest were recruited to participate in the study. The athletes were all teammates on the university's Division I NCAA men's baseball team, which has performed at a high level, nationally, the last few years. The players were enrolled in, and recruited from, an introductory seminar course. Of the eight participating student athletes, five were regular starters in the field, two pitchers were used intermittently in the rotation, and one was a backup fielder that saw limited playing time. Two players were in their first year on the team, while three were in their final year of eligibility. Approval for the study was granted by the university's Institutional Review Board. No incentive was offered for participation. Athletes were administered the survey approximately two months into the 2007 baseball season.

Instrument

Mastery-avoidance goals. Existing published items measuring MAV in the sports domain were not used in the current study due to their emotional cues and lack of goal specificity. For example, the 2 x 2 Achievement Goal Questionnaire for Sports (AGQ-S; Conroy et al., 2003) measures MAV with the following items, "I worry that I may not perform as well as I possibly can," "Sometimes I'm afraid that I may not perform as well as I can," and "I'm often concerned that I may not perform as well as I can perform." The emotional terms *worry*, *afraid*, and *concerned* reflect the relationship of MAV to the fear of failure motive, which is often found to be an antecedent to avoidance goals (Elliot & Sheldon, 1997; Conroy, 2004; Conroy & Elliot, 2004). However, empirical research in the academic domain has revealed that using negative emotion items to measure MAV renders the construct virtually inseparable from measures of psychological distress such as negative affect and test anxiety (Easter et al., 2007a, 2007b). Additionally, the items used in the AGQ-S are not framed in terms of a lucid goal, but rather a feeling about performance, leading to further concerns about the items (Bonney & Cortina, 2006; Hulleman et al., 2006). Both issues have since been addressed by Elliot and colleagues in the academic domain, resulting in the removal of motive content (e.g., fear of failure) and affective terms from items and inclusion of more goal-specific terms when measuring MAV (Cury, Elliot, Da Fonseca, & Moller, 2006; Pekrun, Elliot, & Maier, 2006). Similar revisions have yet to be made to AGQ-S items measuring MAV in athletes. Thus, we created two items intended to capture common examples of athletes' MAV goals (see Elliot, 1999; Elliot & McGregor, 2001; Conroy, Elliot, & Coatsworth, 2007), while also adhering to the academic goal revisions cited above.

The survey informed baseball players that they were being asked about their goals for the current season, and consisted of demographic information and two MAV goal items. The two MAV items used in the current study, "My goal is to avoid losing my skills" and "My goal is to avoid doing worse than I did last season," are in accord with the 2 x 2 achievement goal framework because they ask baseball players about their goal strivings to "avoid absolute or intrapersonal incompetence" (Conroy et al., 2003, p. 457). Players first rated an item on a 1 *not at all true of me* to 6 *very true of me* scale. The provision of an even number of response options forced players into either a high (4 - 6) or low goal endorsement (1 - 3). Athletes were then queried, "Please explain why you answered the way that you did (try to be specific, give an example if needed)." Six lines were provided for the written response. Similar methods have been used in educational research to provide researchers with an understanding of how well students understand approach-avoidance goal items, as well as their reasons behind endorsing a particular goal (see Bonney & Cortina, 2006; Fryer, Zahn, & Elliot, 2007; Karabenick et al., 2007; Urdan & Mestas, 2006).

Results

Athletes' responses on the Likert scale to both questions ranged from 1 to 6. Four of the eight players recorded a response between 1 and 3 to the first item ("My goal is to avoid doing worse than I did last season"), indicating a low endorsement of the item. Three of eight players indicated low endorsement of the second item (“My goal is to avoid losing my skills”). Each MAV goal was endorsed by at last 50% of the baseball players, suggesting that the answer to the first research question (“how strongly - or weakly - do athletes endorse MAV goals?”) is that MAV goals appear to be endorsed about as often as they are not. On the surface, this finding supported the position that “Athletes may be prime candidates for mastery-avoidance goal adoption” (Elliot & Conroy, 2005, p. 20). The second research question (“do players’ explanations for their ratings match their numerical ratings?”) is addressed hereafter.

Mastery-Avoidance as Past Performance

Low endorsement. Half of the athletes indicated a low endorsement of the first MAV goal item (“My goal is to avoid doing worse than I did last season”). The lowest rating, a 1 out of 6, was by a pitcher whom explained:

> *Not very hard to do worse than I did last season as I redshirted and didn't even see the field. At least this year I've got some limited playing time, and if it continues it would be very hard for me not to improve on this year for next.*

The response represents not only a clear understanding of the item, but valuable insight into why the athlete did not endorse this particular goal. Striving to avoid performing worse than one’s past performance is a common example of MAV in the athletic domain. In this case the athlete did not play during the prior season, and thus there were no performance criteria to reference.

The three remaining three players that did not endorse the item provided strikingly similar reasons for doing so, as they explained their ratings of 2, 3, 2, respectively: “*Every year is different and it doesn't always get easier. I just put maximum effort whenever I am on the mound,” “I want to do better every year but you can't think that way. You need to focus on the future not the past,”* and *“It is more important for me to put things in the past and not worry* *about them. Every new season involves new goals and by worrying about last season may mess with your head."* Each player states the importance of focusing on the present and/or the future, as ruminating on past performance may be maladaptive. In summary, all four athletes not endorsing this particular MAV goal provided a valid reason for rejecting it, indicating they understood the item.

High endorsement. One senior in his final year on the team explained his endorsement of the goal (5 out of 6) by stating:

> *I try to improve on last year. I look back and compare what I have done in the past to see what I need to work on. Normally I look at the stats to see which areas I need to improve on the most.*

This athlete references past performance as an integral part of his goal for the season. He specifically refers to using the self-standard of statistics from the previous year to gauge this progress and areas in need of improvement. However, the explanation provided is more consistent with mastery-approach motivation than MAV. Specifically, the athlete appears more motivated to improve upon his previous performance than to avoid the possibility of performing worse.

The three remaining players explained their endorsement (4, 6, and 4 respectively) of the goal by stating, "*I always want to be better,*" "*I want to be better than I was the year before in every category,"* and "*Each year is new and you always want to improve. We try not to look in the past."* All three responses again indicate that the athletes may have misinterpreted the goal. The numerical response on the Likert scale is an endorsement of the goal; however, the written explanations seem to refer exclusively to mastery-approach goals.

In sum, half of the athletes endorsed this particular MAV goal. However, only the athletes that did *not* endorse the goal provided valid interpretations of the item, while all four endorsers provided explanations indicating that they either did not understand, or had mentally transformed, the item (see Table 1). In other words, players understood the item when they did not endorse it, but did not understand the item when they did. This suggests that MAV goals are in fact rare in college athletes, because those who endorse them are really thinking of mastery-approach. Responses to the second MAV goal (considered below) provide further support for this conclusion.

Mastery-Avoidance as Loss of One's Skills

Low endorsement. A pitcher in his second year on the team had the lowest endorsement of the second MAV goal item ("My goal is to avoid losing my skills"), rating it a 1. He explains his low endorsement:

> *My skills aren't going anywhere, but consistency is what holds me back. So losing my skills is not what I'm scared of, my goal is taking the skills I possess and making them the best they can be for competition.*

By indicating his skills are not in decline, the athlete's response indicates a strong understanding of the item. Furthermore, the athlete indicates a goal to improve his existing skills, stated in approach terminology. A second pitcher in his first year on the team explained his low endorsement (3 out of 6) by stating, "*I want to sharpen my skills. I want my fastball to be harder, curve ball sharper, and change up to be thrown with perfect control*", while a player in the field explained his rating of 2 by saying, "*My goal is to improve my skills."* Both responses appear to represent approach goals, consistent with the athletes' non-endorsement of the item; apparently they understood the item, but disagreed with it. In sum, all three athletes that did not endorse the goal also appeared to clearly understand the item while rejecting it. This finding supports the results from the first MAV goal, that non-endorsement is associated with understanding the item.

High endorsement. Three of the five players that endorsed the second MAV goal provided explanations that are inconsistent with avoidance motivation. The players explained their ratings (6, 5, and 5 respectively) by stating: "*I want to be the best,*" "*Not only keep my skills but improve them later on,*" and "*It is important to practice everyday to not only keep your skills but to get better everyday.*" All three responses again indicate a misinterpretation of the MAV goal. The first athlete appears to misinterpret the item by explaining his endorsement of MAV with an approach goal. Furthermore, the response is more indicative of a performance-approach goal rather than a MAV goal. All three athletes appear to have transformed avoidance into an approach goal by emphasizing the importance of improving on one's skills. Again, these responses are not consistent with prior conceptions of MAV as being a goal to avoid losing one's skills, or to avoid allowing skills to stagnate (Elliot, 1999).

The remaining two players appeared to provide valid endorsements of the goal. One player explained his high rating of the item (6 out of 6) with the following explanation, "*It is important to practice everyday so your skills stay sharp throughout the seasons. By taking days off you jeopardize keeping your skills unfresh which can cause you to struggle.*" This athlete provides the first high rating of an MAV goal that is also followed by a valid explanation of why he endorses the goal. Specifically, he follows his high endorsement of the goal by explaining that skills can decline without practice. A second athlete provided what may be the only other valid high rating of a MAV goal (4 out of 6), by explaining: "*Not many people want to lose things and skills for a player is one of them. I think this is a negative way of thinking but this is always in the back of my mind.*" This athlete's description suggests a valid understanding of this goal. He admits that, while a negative way of thinking, it is always a conscious goal. Interestingly, this athlete was in his senior and final year on the team. Consistent with the extant MAV literature, it may that older players are more likely to adopt a goal to avoid losing one's skills as younger players are competing for their positions. In sum, three of the five athletes endorsing this particular MAV goal provided an explanation suggesting that MAV items can be construed, at least by some, as an approach goal. However, two players provided valid interpretations to accompany their high MAV ratings (see Table 1).

Discussion

The current study examined eight elite college baseball players' ratings and explanations of two MAV goals ("My goal is to avoid doing worse than I did last season" and "My goal is to avoid losing my skills"). First, the athletes rated their level of the agreement on a Likert scale, and then they provided a written explanation of why they did, or did not, endorse the goal. Results revealed that each goal was endorsed by at least half of the athletes; however, explanations did not always match the rating (see Table 1). All four athletes that did *not* endorse the first goal, and the three that did not endorse the second goal, provided valid explanations of their ratings. However, all four of the athletes endorsing the first goal, and three of the five endorsing the second goal, provided explanations that did not match their rating. In other words, in seven of the nine occasions that a MAV goal was endorsed, players immediately provided an explanation that emphasized an approach rather than an avoidance goal.

A similar pattern of results has recently been documented with performance-avoidance goals. Urdan and Mestas (2006) coded surveys of high school students that rated themselves high on performance-approach or performance-avoidance. The researchers returned to the school a few months later to interview the students about their goals. Students had difficulty interpreting the avoidance items, often explaining their endorsement in approach terms. Urdan and Mestas (2006) explain:

> … participants often responded to performance-avoidance items with approach explanations, saying they wanted to appear able or outperform peers even though the question asked about not performing or appearing worse than others. Some students, even with repeated attempts to present the items, interpreted the performance-avoidance goal items differently than the researchers intended. When asked whether they wanted to avoid doing worse than others, students often replied "Yes, I want to do better than others" (p. 363).

In the current study, several players had strikingly similar problems interpreting avoidance items. However, this study extends the dilemma from performance-avoidance goals to mastery-avoidance goals.

One possible explanation of these findings is that students had no outlet for expressing their approach motivations, and thus they endorsed the avoidance goals despite their non-optimal wording. However this explanation does not appear to apply here, because similar to the Urdan and Mestas (2006) study, we provided athletes with an approach goal: "I want to improve as much as possible" (thus, three goals were provided, in all). All eight players rated themselves a 6 out of 6 on this mastery-approach item. Thus, despite having an opportunity to express their strong approach motivation, athletes still tended to misread (or misinterpret) the avoidance items. Together, these results suggest that MAV goals may indeed be quite rare in this population, despite being endorsed by half the players. In only two (of sixteen) cases did a player both endorse and understand such items.

Still, it is worth mentioning that these players are young, still in the process of developing their skills to the maximum. MAV goals may be more common in older athletes, who are starting to feel the press of time and the competition from younger, stronger players. Indeed, Elliot (1999) emphasized that MAV goals may be especially prominent in older people, who are trying to arrest the slow erosion of their abilities, cognitive or athletic. Consistent with this perspective, one of the few valid endorsements of a MAV item came from one of the seniors on the team, a player who may have reached his peak or who may feel pressure from the rapidly developing younger players.

Limitations

The current study is not without limitations. Most notably, the written response method used in the current study did not allow for follow-up questions and the clarification procedures that are afforded by an interview. For example, numerous athletes endorsed an avoidance goal but provided an explanation in approach terms. An interview would have provided an opportunity to clarify whether the athletes actually misread the question, or whether they were choosing to mentally reframe it for themselves, or whether they view approach and avoidance motivation as logically equivalent (e.g., Karabenick et al., 2007). Notably, however, Urdan and Mestas (2006) repeatedly questioned students about contradictory ratings and explanations of goals, only to find that many students could not make the distinction between approach and avoidance forms of performance goals.

A second limitation was that we did not provide the athletes with task-referent goals, i.e. goals that ask about avoidance motivation within the concrete situations they face on the field. Based on Elliot's (1999) suggestions, players might have given greater endorsement to items such as "my goal is to avoid missing when I swing" or "my goal is to avoid making errors in the field." Such items might have had greater intrinsic resonance for players, although it is also possible that endorsers of such items would still transform them (e.g., to "yes, I always try to make contact" or "yes, I always want to field the ball cleanly." Thus, future research should continue testing various possible MAV items, to evaluate the generalizability of the phenomena documented here. A final limitation of the study is the modest sample size of eight baseball players. However, it should be noted that the sample included over half of the regular starters in the field and in the batting lineup, for an elite Division I baseball team. Future research should continue to strive to obtain unique samples such as this while also heeding the advice to use "qualitative methods and incorporate individual's comments" when assessing MAV goals (Bonney & Cortina, 2006, p. 27).

Conclusion

Bonney and Cortina (2006, p. 27) cautioned that while "the general concept of mastery-avoidance is not foreign to…athletes and may have significant implications for their subsequent motivation and achievement," there is a strong need to "continue work on clarifying the conceptualization of this goal." Our results support this claim as only two of the nine MAV endorsements were paired with a valid interpretation of the goal. These results indicate that high ratings of MAV goals may often be the result of misinterpreting the item as an approach goal, making true MAV endorsement, at least in college-age athletes, somewhat rare. In 1999, Elliot posed hypotheses about the role of MAV within the 2 x 2 achievement goal framework, and asked researchers to "fully attend to this construct" (p. 182). The current results suggest that more research is needed to find ways to measure the construct without contamination by approach goals. Unfortunately, if such measures are developed, they may reveal that true MAV goals are quite rare.

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Table 1

Baseball Players' Explanations of Mastery-Avoidance Goal Ratings

	“My goal is to avoid doing worse than I did last season”			“My goal is to avoid losing my skills”		
Position	Endorse	Excerpt from written explanation	Valid	Endorse	Excerpt from written explanation	Valid
Pitcher	No	*Not very hard to do worse than I did last season as I…didn't even see the field.*	Yes	No	*My skills aren't going anywhere. …my goal is taking the skills I possess and making them the best….*	Yes
Pitcher	No	*Every year is different…. I just put maximum effort whenever I am on the mound.*	Yes	No	*I want to sharpen my skills. I want my fastball to be harder, curve ball sharper, and change up to be thrown with perfect control.*	Yes
Infield	No	*You need to focus on the future not the past.*	Yes	Yes	*It is important to practice everyday to not only keep your skills but to get better everyday.*	No
Infield	No	*Every new season involves new goals and by worrying about last season may mess with your head.*	Yes	Yes	*By taking days off you jeopardize keeping your skills unfresh which can cause you to struggle.*	Yes
Infield	Yes	*I always want to be better.*	No	Yes	*Not only keep my skill but improve them….*	No
Outfield	Yes	*I want to be better than I was the year before….*	No	Yes	*I want to be the best.*	No
Infield	Yes	*Each year is new and you always want to improve.*	No	No	*My goal is to improve my skills.*	Yes
Infield	Yes	*I try to improve on last year.*	No	Yes	*…this is a negative way of thinking but this is always in the back of my mind.*	Yes